Serial No. 09/707,900

Patent 55293-00007

In the Claims:

Please amend claims 1, 4, 5, and 13 as follows:

- 1. (Currently amended) A method of treating osteoarthritis comprising:
- a) generating a recombinant viral or plasmid vector comprising a DNA sequence
 encoding transforming growth factor β1 or BMP operatively linked to a promoter;
- b) transfecting in vitro a population of ehondrocyte-cells chondrocytes with said recombinant vector, resulting in a population of transfected/transduced transfected chondrocyte cells chondrocytes; and
- c) transplanting said transfected/transduced transfected ehondrocyte cells chondrocytes without scaffolding by intraarticular injection to an osteoarthritic joint space of a mammalian host, such that expression of said DNA sequence within said joint space results in regenerating connective tissue.
- 2. (Previously presented) The method of claim 13, wherein said recombinant viral vector is a retroviral vector.
- 3. (Previously presented) The method of claim 13, wherein said recombinant vector is a plasmid vector.
- 4. (Currently amended) The method of claim 13, wherein said population of transfected/transduced transfected ehondrocyte cells chondrocytes are stored prior to transplantation.
- 5. (Currently amended) The method of claim 4, wherein said population of transfected/transduced transfected ehondrocyte cells chondrocytes are stored in 10% DMSO under liquid nitrogen prior to transplantation.

6.-12. (Canceled)

- 13. (Currently amended) A method of regenerating hyaline cartilage, comprising:
- a) generating a recombinant viral or plasmid vector comprising a DNA sequence encoding transforming growth factor β1 (TGF-β1) or BMP operatively linked to a promoter;